TENNESSEE AIR POLLUTION CONTROL BOARD
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
NASHVILLE, TENNESSEE 37243

OPERATING PERMIT (TITLE V) Issued Pursuant to Tennessee Air Quality Act

This permit fulfills the requirements of Title V of the Federal Clean Air Act (42 U.S.C. 7661a-7661e) and the federal regulations promulgated thereunder at 40 CFR Part 70 (FR Vol. 57, No. 140, Tuesday, July 21, 1992, pp. 32295-32312). This permit is issued in accordance with the provisions of paragraph 1200-03-09-.02(11) of the Tennessee Air Pollution Control Regulations. The Permittee has been granted permission to operate an air contaminant source in accordance with emission limitations, monitoring requirements set forth herein.

Date Issued: DRAFT

Permit Number:
572606

Date Expires:

Issued To:
Tennessee Gas Pipeline Company, L.L.C. (TGP) - Station 71

Installation Address:
2560 Highway 125 South
Middleton

Installation Description:
Natural Gas Pipeline Compressor Station - Station 71:
01 - Twenty-three (23) 2-cycle (stroke) lean-burn reciprocating natural gas-fired internal combustion engines for compression of pipeline natural gas

02 - One (1) 4-cycle (stroke) lean-burn reciprocating natural gas-fired emergency engine (MACT Subpart ZZZZ, NSPS JJJJ)

03 – One (1) natural gas-fired jacket water heater and One (1) natural gas-fired waste water evaporator (MACT Subpart DDDDD)

Emission Source Reference No.: 35-0006

Renewal Application Due Date:
Between XX and XX (to be determined)

Primary SIC: 49

Information Relied Upon:
Title V Renewal Application dated March 9, 2017

_____DRAFT_____
TECHNICAL SECRETARY

No Authority is Granted by this Permit to Operate, Construct, or Maintain any Installation in Violation of any Law, Statute, Code, Ordinance, Rule, or Regulation of the State of Tennessee or any of its Political Subdivisions.

POST AT INSTALLATION ADDRESS

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SECTION A
GENERAL PERMIT CONDITIONS

A permit issued under the provisions of paragraph 1200-03-09-.02(11) is a permit issued pursuant to the requirements of Title V of the Federal Act and its implementing Federal regulations promulgated at 40 CFR, Part 70.

A1. **Definitions.** Terms not otherwise defined in the permit shall have the meaning assigned to such terms in the referenced regulation.

TAPCR 1200-03

A2. **Compliance requirement.** All terms and conditions in a permit issued pursuant to paragraph 1200-03-09-.02(11) including any provisions designed to limit a source's potential to emit, are enforceable by the Administrator and citizens under the Federal Act.

The Permittee shall comply with all conditions of its permit. Except for requirements specifically designated herein as not being federally enforceable (State Only), non-compliance with the permit requirements is a violation of the Federal Act and the Tennessee Air Quality Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. Non-compliance with permit conditions specifically designated herein as not being federally enforceable (State Only) is a violation of the Tennessee Air Quality Act and may be grounds for these actions.

TAPCR 1200-03-09-.02(11)(e)2(i) and 1200-03-09-.02(11)(e)1(vi)(I)

A3. **Need to halt or reduce activity.** The need to halt or reduce activity is not a defense for noncompliance. It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. However, nothing in this item shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in assessing penalties for noncompliance if the health, safety or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations.

TAPCR 1200-03-09-.02(11)(e)1(vi)(II)

A4. **The permit.** The permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

TAPCR 1200-03-09-.02(11)(e)1(vi)(III)

A5. **Property rights.** The permit does not convey any property rights of any sort, or any exclusive privilege.

TAPCR 1200-03-09-.02(11)(e)1(vi)(IV)

A6. **Submittal of requested information.** The Permittee shall furnish to the Technical Secretary, within a reasonable time, any information that the Technical Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or termination of the permit or to determine compliance with the permit. Upon request, the Permittee shall also furnish to the Technical Secretary copies of records required to be kept by the permit. If the Permittee claims that such information is confidential, the Technical Secretary may review that claim and hold the information in protected status until such time that the Board can hear any contested proceedings regarding confidentiality disputes. If the information is desired by EPA, the Permittee may mail the information directly to EPA. Any claims of confidentiality for federal purposes will be determined by EPA.

TAPCR 1200-03-09-.02(11)(e)1(vi)(V)

A7. **Severability clause.** The requirements of this permit are severable. A dispute regarding one or more requirements of this permit does not invalidate or otherwise excuse the Permittee from their duty to comply with the remaining portion of the permit.

TAPCR 1200-03-09.02(11)(e)1(v)

A8. Fee payment.

(a) The permittee shall pay an annual Title V emission fee based upon the responsible official's choice of actual emissions, allowable emissions, or a combination of actual and allowable emissions; and on the responsible official's choice of annual accounting period. An emission cap of 4,000 tons per year per regulated pollutant per major source SIC Code shall apply to actual or allowable based emission fees. A Title V annual emission fee will not be charged for emissions in excess of the cap. Title V annual emission fees will not be charged for carbon monoxide or for greenhouse gas pollutants solely because they are greenhouse gases.

(b) Title V sources shall pay allowable based emission fees until the beginning of the next annual accounting period following receipt of their initial Title V operating permit. At that time, the permittee shall begin paying their Title V fee based upon their choice of actual or allowable based fees, or mixed actual and allowable based fees. Once permitted, the Responsible Official may revise their existing fee choice by submitting a written request to the Division no later than December 31 of the annual accounting period for which the fee is due.

(c) **W**hen paying annual Title V emission fees, the permittee shall comply with all provisions of 1200-03-26-.02 and 1200-03-09-.02(11) applicable to such fees.

(d) Where more than one (1) allowable emission limit is applicable to a regulated pollutant, the allowable emissions for the regulated pollutants shall not be double counted. Major sources subject to the provisions of paragraph 1200-03-26-.02(9) shall apportion their emissions as follows to ensure that their fees are not double counted.

1. *Sources that are subject to federally promulgated hazardous air pollutant under 40 CFR 60, 61, or 63 will place such regulated emissions in the regulated hazardous air pollutant (HAP) category.*

2. *A category of miscellaneous HAPs shall be used for hazardous air pollutants listed at part 1200-03-26-.02(2)(i)12 that are not subject to federally promulgated hazardous air pollutant standards under 40 CFR 60, 61, or 63.*

3. HAPs that are also in the family of volatile organic compounds, particulate matter, or PM_{10} shall not be placed in either the regulated HAP category or miscellaneous HAP category.

4. Sources that are subject to a provision of chapter 1200-03-16 New Source Performance Standards (NSPS) or chapter 0400-30-39 Standards of Performance for New Stationary Sources for pollutants that are neither particulate matter, PM_{10}, sulfur dioxide (SO_2), volatile organic compounds (VOC), nitrogen oxides (NO_x), or hazardous air pollutants (HAPs) will place such regulated emissions in an NSPS pollutant category.

5. The regulated HAP category, the miscellaneous HAP category, and the NSPS pollutant category are each subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i).

6. Major sources that wish to pay annual emission fees for PM_{10} on an allowable emission basis may do so if they have a specific PM_{10} allowable emission standard. If a major source has a total particulate emission standard, but wishes to pay annual emission fees on an actual PM_{10} emission basis, it may do so if the PM_{10} actual emission levels are proven to the satisfaction of the Technical Secretary. The method to demonstrate the actual PM_{10} emission levels must be made as part of the source's major source operating permit in advance in order to exercise this option. The PM_{10} emissions reported under these options shall not be subject to fees under the family of particulate emissions. The 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i) shall also apply to PM_{10} emissions.

TAPCR 1200-03-26-.02 and 1200-03-09-.02(11)(e)1(vii)

A9. Permit revision not required. A permit revision will not be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or process for changes that are provided for in the permit.

TAPCR 1200-03-09-.02(11)(e)1(viii)

A10. Inspection and entry. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the Technical Secretary or his authorized representative to perform the following for the purposes of determining compliance with the permit applicable requirements:

(a) Enter upon, at reasonable times, the Permittee's premises where a source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

(c) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

(d) As authorized by the Clean Air Act and Chapter 1200-03-10 of TAPCR, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(e) "Reasonable times" shall be considered to be customary business hours unless reasonable cause exists to suspect noncompliance with the Act, Division 1200-03 or any permit issued pursuant thereto and the Technical Secretary specifically authorizes an inspector to inspect a facility at any other time.

TAPCR 1200-03-09-.02(11)(e)3.(ii)

A11. Permit shield.

(a) Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date of permit issuance, provided that:

1. Such applicable requirements are included and are specifically identified in the permit; or

2. The Technical Secretary, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.

(b) Nothing in this permit shall alter or affect the following:

1. The provisions of section 303 of the Federal Act (emergency orders), including the authority of the Administrator under that section. Similarly, the provisions of T.C.A. §68-201-109 (emergency orders) including the authority of the Governor under the section;

2. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

3. The applicable requirements of the acid rain program, consistent with section 408(a) of the Federal Act; or

4. The ability of EPA to obtain information from a source pursuant to section 114 of the Federal Act.

(c) Permit shield is granted to the Permittee.

TAPCR 1200-03-09-.02(11)(e)6

A12. Permit renewal and expiration.

(a) Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted at least 180 days, but no more than 270 days prior to the expiration of this permit.

(b) Provided that the Permittee submits a timely and complete application for permit renewal the source will not be considered in violation of paragraph 1200-03-09-.02(11) until the Technical Secretary takes final action on the permit application, except as otherwise noted in paragraph 1200-03-09-.02(11).

(c) This permit, its shield provided in Condition A11, and its conditions will be extended and effective after its expiration date provided that the source has submitted a timely, complete renewal application to the Technical Secretary.

TAPCR 1200-03-09-.02(11)(f)3 and 2, 1200-03-09-.02(11)(d)1(i)(III), and 1200-03-09-.02(11)(a)2

A13. Reopening for cause.

(a) A permit shall be reopened and revised prior to the expiration of the permit under any of the circumstances listed below:

1. Additional applicable requirements under the Federal Act become applicable to the sources contained in this permit provided the permit has a remaining term of 3 or more years. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the permit expiration date of this permit, unless the original has been extended pursuant to 1200-03-09-.02(11)(a)2.

2. Additional requirements become applicable to an affected source under the acid rain program.

3. The Technical Secretary or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

4. The Technical Secretary or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

(b) Proceedings to reopen and issue a permit shall follow the same proceedings as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists, and not the entire permit. Such reopening shall be made as expeditiously as practicable.

(c) Reopenings for cause shall not be initiated before a notice of such intent is provided to the Permittee by the Technical Secretary at least 30 days in advance of the date that the permit is to be reopened except that the Technical Secretary may provide a shorter time period in the case of an emergency. An emergency shall be established by the criteria of T.C.A. 68-201-109 or other compelling reasons that public welfare is being adversely affected by the operation of a source that is in compliance with its permit requirements.

(d) If the Administrator finds that cause exists to terminate, modify, or revoke and reissue a permit as identified in A13, he is required under federal rules to notify the Technical Secretary and the Permittee of such findings in writing. Upon receipt of such notification, the Technical Secretary shall investigate the matter in order to determine if he agrees or disagrees with the Administrator's findings. If he agrees with the Administrator's findings, the Technical Secretary shall conduct the reopening in the following manner:

1. The Technical Secretary shall, within 90 days after receipt of such notification, forward to EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate. If the Administrator grants additional time to secure permit applications or additional information from the Permittee, the Technical Secretary shall have the additional time period added to the standard 90 day time period.

2. EPA will evaluate the Technical Secretary's proposed revisions and respond as to their evaluation.

3. If EPA agrees with the proposed revisions, the Technical Secretary shall proceed with the reopening in the same manner prescribed under Condition A13 (b) and Condition A13 (c).

4. If the Technical Secretary disagrees with either the findings or the Administrator that a permit should be reopened or an objection of the Administrator to a proposed revision to a permit submitted pursuant to Condition A13(d), he shall bring the matter to the Board at its next regularly scheduled meeting for instructions as to how he should proceed. The Permittee shall be required to file a written brief expressing their position relative to the Administrator's objection and have a responsible official present at the meeting to answer questions for the Board. If the Board agrees that EPA is wrong in their demand for a permit revision, they shall instruct the Technical Secretary to conform to EPA's demand, but to issue the permit under protest preserving all rights available for litigation against EPA.

TAPCR 1200-03-09-.02(11)(f)6 and 7.

A14. **Permit transference.** An administrative permit amendment allows for a change of ownership or operational control of a source where the Technical Secretary determines that no other change in the permit is necessary, provided that the following requirements are met:

(a) Transfer of ownership permit application is filed consistent with the provisions of 1200-03-09-.03(6), and

(b) Written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new Permittee has been submitted to the Technical Secretary.

TAPCR 1200-03-09-.02(11)(f)4(i)(IV) and 1200-03-09-.03(6)

A15. **Air pollution alert.** When the Technical Secretary has declared that an air pollution alert, an air pollution warning, or an air pollution emergency exists, the Permittee must follow the requirements for that episode level as outlined in TAPCR 1200-03-09-.03(1) and TAPCR 1200-03-15-.03.

A16. **Construction permit required.** Except as exempted in TAPCR 1200-03-09-.04, or excluded in subparagraph TAPCR 1200-03-02-.01(1)(aa) or subparagraph TAPCR 1200-03-02-.01(1)(cc), this facility shall not begin the construction of a new air contaminant source or the modification of an air contaminant source which may result in the discharge of air contaminants without first having applied for and received from the Technical Secretary a construction permit for the construction or modification of such air contaminant source.

TAPCR 1200-03-09-.01(1)(a)

A17. **Notification of changes.** The Permittee shall notify the Technical Secretary 30 days prior to commencement of any of the following changes to an air contaminant source which would not be a modification requiring a construction permit.

(a) change in air pollution control equipment

(b) change in stack height or diameter

(c) change in exit velocity of more than 25 percent or exit temperature of more than 15 percent based on absolute temperature.

TAPCR 1200-03-09-.02(7)

A18. **Schedule of compliance.** The Permittee will comply with any applicable requirement that becomes effective during the permit term on a timely basis. If the Permittee is not in compliance, the Permittee must submit a schedule for coming into compliance, which must include a schedule of remedial measure(s), including an enforceable set of deadlines for specific actions.

TAPCR 1200-03-09-.02(11)(d)3 and 40 CFR Part 70.5(c)

A19. **Title VI.**

(a) The Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR, Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:

1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to Section 82.156.

2. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to Section 82.158.

3. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to Section 82.161.

(b) If the Permittee performs a service on motor (fleet) vehicles when this service involves ozone depleting substance refrigerant in the motor vehicle air conditioner (MVAC), the Permittee is subject to all the applicable requirements as specified in 40 CFR, Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

(c) The Permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR, Part 82, Subpart G, Significant New Alternatives Policy Program.

A20. **112 (r).** The Permittee shall comply with the requirement to submit to the Administrator or designated State Agency a risk management plan, including a registration that reflects all covered processes, by June 21, 1999, if the Permittee's facility is required pursuant to 40 CFR 68 to submit such a plan.

TAPCR 1200-03-32-.03(3)

SECTION B

GENERAL CONDITIONS for MONITORING, REPORTING, and ENFORCEMENT

B1. **Recordkeeping.** Monitoring and related record keeping shall be performed in accordance with the requirements specified in the permit conditions for each individual permit unit. In no case shall reports of any required monitoring and record keeping be submitted less frequently than every six months.

(a) Where applicable, records of required monitoring information include the following:

1. The date, place as defined in the permit, and time of sampling or measurements;

2. The date(s) analyses were performed;

3. The company or entity that performed the analysis;

4. The analytical techniques or methods used;

5. The results of such analyses; and

6. The operating conditions as existing at the time of sampling or measurement.

(b) Digital data accumulation which utilizes valid data compression techniques shall be acceptable for compliance determination as long as such compression does not violate an applicable requirement and its use has been approved in advance by the Technical Secretary.

TAPCR 1200-03-09-.02(11)(e)1(iii)

B2. **Retention of monitoring data.** The Permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

TAPCR 1200-03-09-.02(11)(e)1(iii)(II)II

B3. **Reporting.** Reports of any required monitoring and record keeping shall be submitted to the Technical Secretary in accordance with the frequencies specified in the permit conditions for each individual permit unit. Reporting periods will be dated from the end of the first complete calendar quarter following issuance of this permit unless otherwise noted. Reports shall be submitted within 60 days of the close of the reporting period unless otherwise noted. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official. Reports required under "State only requirements" are not required to be certified by a responsible official.

TAPCR 1200-03-09-.02(11)(e)1(iii)

B4. **Certification.** Except for reports required under “State Only” requirements, any application form, report or compliance certification submitted pursuant to the requirements of this permit shall contain certification by a responsible official of truth, accuracy and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

TAPCR 1200-03-09-.02(11)(d)4

B5. **Annual compliance certification.** The Permittee shall submit annually compliance certifications with terms and conditions contained in Sections A, B, D and E of this permit, including emission limitations, standards, or work practices. This compliance certification shall include all of the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable):

(a) The identification of each term or condition of the permit that is the basis of the certification;

(b) The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period; such methods and other means shall include, at a minimum, the methods and means required by this permit If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Act, which prohibits knowingly making a false certification or omitting material information;

(c) The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance was continuous or intermittent. The certification shall be based on the method or means

designated in B5(b) above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion* or exceedance** as defined below occurred; and

(d) Such other facts as the Technical Secretary may require to determine the compliance status of the source.

* "Excursion" shall mean a departure from an indicator range established for monitoring under this paragraph, consistent with any averaging period specified for averaging the results of the monitoring.

** "Exceedance" shall mean a condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) are greater than the applicable emission limitation or standard (or less than the applicable standard in the case of a percent reduction requirement) consistent with any averaging period specified for averaging the results of the monitoring.

40 CFR Part 70.6(c)(5)(iii) as amended in the Federal Register Vol.79, No.144, July 28, 2014, pages 43661 and 43667

B6. **Submission of compliance certification.** The compliance certification shall be submitted to:

The Tennessee Department of Environment and Conservation Environmental Field Office specified in Section E of this permit	and	Air and EPCRA Enforcement Branch US EPA Region IV 61 Forsyth Street, SW Atlanta, Georgia 30303

TAPCR 1200-03-09-.02(11)(e)3(v)(IV)

B7. **Emergency provisions.** An emergency constitutes an affirmative defense to an enforcement action brought against this source for noncompliance with a technology based emission limitation due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

(a) The affirmative defense of the emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An emergency occurred and that the Permittee can identify the probable cause(s) of the emergency. "Probable" must be supported by a credible investigation into the incident that seeks to identify the causes and results in an explanation supported by generally accepted engineering or scientific principles.

2. The permitted source was at the time being properly operated. In determining whether or not a source was being properly operated, the Technical Secretary shall examine the source's written standard operating procedures which were in effect at the time of the noncompliance and any other code as detailed below that would be relevant to preventing the noncompliance. Adherence to the source's standard operating procedures will be the test of adequate preventative maintenance, careless operation, improper operation or operator error to the extent that such adherence would prevent noncompliance. The source's failure to follow recognized standards of practice to the extent that adherence to such a standard would have prevented noncompliance will disqualify the source from any claim of an emergency and an affirmative defense.

3. During the period of the emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.

4. The Permittee submitted notice of the emergency to the Technical Secretary according to the notification criteria for malfunctions in rule 1200-03-20-.03. For the purposes of this condition, "emergency" shall be substituted for "malfunction(s)" in rule 1200-03-20-.03 to determine the relevant notification threshold. The notice shall include a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(c) The provisions of this condition are in addition to any emergency, malfunction or upset requirement contained in Division 1200-03 or other applicable requirement.

TAPCR 1200-03-09-.02(11)(e)7

B8. Excess emissions reporting.

(a) The Permittee shall promptly notify the Technical Secretary when any emission source, air pollution control equipment, or related facility breaks down in such a manner to cause the emission of air contaminants in excess of the applicable emission standards contained in Division 1200-03 or any permit issued thereto, or of sufficient duration to cause damage to property or public health. The Permittee must provide the Technical Secretary with a statement giving all pertinent facts, including the estimated duration of the breakdown. Violations of the visible emission standard which occur for less than 20 minutes in one day (midnight to midnight) need not be reported. Prompt notification will be within 24 hours of the malfunction and shall be provided by telephone to the Division's Nashville office. The Technical Secretary shall be notified when the condition causing the failure or breakdown has been corrected. In attainment and unclassified areas if emissions other than from sources designated as significantly impacting on a nonattainment area in excess of the standards will not and do not occur over more than a 24-hour period (or will not recur over more than a 24-hour period) and no damage to property and or public health is anticipated, notification is not required.

(b) Any malfunction that creates an imminent hazard to health must be reported by telephone immediately to the Division's Nashville office and to the State Civil Defense.

(c) A log of all malfunctions, startups, and shutdowns resulting in emissions in excess of the standards in Division 1200-03 or any permit issued thereto must be kept at the plant. All information shall be entered in the log no later than twenty-four (24) hours after the startup or shutdown is complete, or the malfunction has ceased or has been corrected. Any later discovered corrections can be added in the log as footnotes with the reason given for the change. This log must record at least the following:

1. Stack or emission point involved

2. Time malfunction, startup, or shutdown began and/or when first noticed

3. Type of malfunction and/or reason for shutdown

4. Time startup or shutdown was complete or time the air contaminant source returned to normal operation.

5. The company employee making entry on the log must sign, date, and indicate the time of each log entry.

The information under items 1. and 2. must be entered into the log by the end of the shift during which the malfunction or startup began. For any source utilizing continuous emission(s) monitoring, continuous emission(s) monitoring collection satisfies the above log keeping requirement.

TAPCR 1200-03-20-.03 and .04

B9. **Malfunctions, startups and shutdowns - reasonable measures required.** The Permittee must take all reasonable measures to keep emissions to a minimum during startups, shutdowns, and malfunctions. These measures may include installation and use of alternate control systems, changes in operating methods or procedures, cessation of operation until the process equipment and/or air pollution control equipment is repaired, maintaining sufficient spare parts, use of overtime labor, use of outside consultants and contractors, and other appropriate means. Failures that are caused by poor maintenance, careless operation or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions. This provision does not apply to standards found in 40 CFR, Parts 60 (Standards of performance for new stationary sources), 61 (National emission standards for hazardous air pollutants) and 63 (National emission standards for hazardous air pollutants for source categories).

TAPCR 1200-03-20-.02

B10. Reserved.
TAPCR 1200-03-20-.04(2)

B11. **Report required upon the issuance of a notice of violation for excess emissions.** The Permittee must submit within twenty (20) days after receipt of the notice of violation, the data shown below to assist the Technical Secretary in deciding whether to excuse or validate the violation. If this data has previously been available to the Technical Secretary prior to the issuance of the notice of violation no further action is required of the violating source. However, if the source desires to submit additional information, then this must be submitted within the same twenty (20) day time period. The minimum data requirements are:

(a) The identity of the stack and/or other emission point where the excess emission(s) occurred;

(b) The magnitude of the excess emissions expressed in pounds per hour and the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions;

(c) The time and duration of the emissions;

(d) The nature and cause of such emissions;

(e) For malfunctions, the steps taken to correct the situation and the action taken or planned to prevent the recurrence of such malfunctions;

(f) The steps taken to limit the excess emissions during the occurrence reported, and

(g) If applicable, documentation that the air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good operating practices for minimizing emissions.

Failure to submit the required report within the twenty (20) day period specified shall preclude the admissibility of the data for consideration of excusal for malfunctions.

TAPCR 1200-03-20-.06(2), (3) and (4)

SECTION C

PERMIT CHANGES

C1. **Operational flexibility changes.** The source may make operational flexibility changes that are not addressed or prohibited by the permit without a permit revision subject to the following requirements:

(a) The change cannot be subject to a requirement of Title IV of the Federal Act or Chapter 1200-03-30.

(b) The change cannot be a modification under any provision of Title I of the federal Act or Division 1200-03.

(c) Each change shall meet all applicable requirements and shall not violate any existing permit term or condition.

(d) The source must provide contemporaneous written notice to the Technical Secretary and EPA of each such change, except for changes that are below the threshold of levels that are specified in Rule 1200-03-09-.04.

(e) Each change shall be described in the notice including the date, any change in emissions, pollutants emitted, and any applicable requirements that would apply as a result of the change.

(f) The change shall not qualify for a permit shield under the provisions of part 1200-03-09-.02(11)(e)6.

(g) The Permittee shall keep a record describing the changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes. The records shall be retained until the changes are incorporated into subsequently issued permits.

TAPCR 1200-03-09-.02(11)(a)4 (ii)

C2. Section 502(b)(10) changes.

(a) The Permittee can make certain changes without requiring a permit revision, if the changes are not modifications under Title I of the Federal Act or Division 1200-03 and the changes do not exceed the emissions allowable under the permit. The Permittee must, however, provide the Administrator and Technical Secretary with written notification within a minimum of 7 days in advance of the proposed changes. The Technical Secretary may waive the 7 day advance notice in instances where the source demonstrates in writing that an emergency necessitates the change. Emergency shall be demonstrated by the criteria of TAPCR 1200-03-09-.02(11)(e)7 and in no way shall it include changes solely to take advantages of an unforeseen business opportunity. The Technical Secretary and EPA shall attach each such notice to their copy of the relevant permit.

(b) The written notification must be signed by the facility Title V Responsible Official and include the following:

1. a brief description of the change within the permitted facility;

2. the date on which the change will occur;

3. a declaration and quantification of any change in emissions;

4. a declaration of any permit term or condition that is no longer applicable as a result of the change; and

5. a declaration that the requested change is not a Title I modification and will not exceed allowable emissions under the permit.

(c) The permit shield provisions of TAPCR 1200-03-09-.02(11)(e)6 shall not apply to Section 502(b)(10) changes.

TAPCR 1200-03-09-.02(11)(a)4 (i)

C3. Administrative amendment.

(a) Administrative permit amendments to this permit shall be in accordance with 1200-03-09-.02(11)(f)4. The source may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request.

(b) The permit shield shall be extended as part of an administrative permit amendment revision consistent with the provisions of TAPCR 1200-03-09-.02(11)(e)6 for such revisions made pursuant to item (c) of this condition which meet the relevant requirements of TAPCR 1200-03-09-.02(11)(e), TAPCR 1200-03-09-.02(11)(f) and TAPCR 1200-03-09-.02(11)(g) for significant permit modifications.

(c) Proceedings to review and grant administrative permit amendments shall be limited to only those parts of the permit for which cause to amend exists, and not the entire permit.

TAPCR 1200-03-09-.02(11)(f)4

C4. Minor permit modifications.

(a) The Permittee may submit an application for a minor permit modification in accordance with TAPCR 1200-03-09-.02(11)(f)5(ii).

(b) The Permittee may make the change proposed in its minor permit modification immediately after an application is filed with the Technical Secretary.

(c) Proceedings to review and modify permits shall be limited to only those parts of the permit for which cause to modify exists, and not the entire permit.

(d) Minor permit modifications do not qualify for a permit shield.

TAPCR 1200-03-09-.02(11)(f)5(ii)

C5. **Significant permit modifications.**

(a) The Permittee may submit an application for a significant modification in accordance with TAPCR 1200-03-09-.02(11)(f)5(iv).

(b) Proceedings to review and modify permits shall be limited to only those parts of the permit for which cause to modify exists, and not the entire permit.

TAPCR 1200-03-09-.02(11)(f)5(iv)

C6. **New construction or modifications.**

Future construction at this source that is subject to the provisions of TAPCR 1200-03-09-.01 shall be governed by the following:

(a) The Permittee shall designate in their construction permit application the route that they desire to follow for the purposes of incorporating the newly constructed or modified sources into their existing operating permit. The Technical Secretary shall use that information to prepare the operating permit application submittal deadlines in their construction permit.

(b) Sources desiring the permit shield shall choose the administrative amendment route of TAPCR 1200-03-09-.02(11)(f)4 or the significant modification route of TAPCR 1200-03-09-.02(11)(f)5(iv).

(c) Sources desiring expediency instead of the permit shield shall choose the minor permit modification procedure route of TAPCR 1200-03-09-.02(11)(f)5(ii) or group processing of minor modifications under the provisions of TAPCR 1200-03-09-.02(11)(f)5(iii) as applicable to the magnitude of their construction.

TAPCR 1200-03-09-.02(11)(d) 1(i)(V)

SECTION D

GENERAL APPLICABLE REQUIREMENTS

D1. **Visible emissions.** With the exception of air emission sources exempt from the requirements of TAPCR Chapter 1200-03-05 and air emission sources for which a different opacity standard is specifically provided elsewhere in this permit, the Permittee shall not cause, suffer, allow or permit discharge of a visible emission from any air contaminant source with an opacity in excess of twenty (20) percent for an aggregate of more than five (5) minutes in any one (1) hour or more than twenty (20) minutes in any twenty-four (24) hour period; provided, however, that for fuel burning installations with fuel burning equipment of input capacity greater than 600 million btu per hour, the Permittee shall not cause, suffer, allow, or permit discharge of a visible emission from any fuel burning installation with an opacity in excess of twenty (20) percent (6-minute average) except for one six minute period per one (1) hour of not more than forty (40) percent opacity. Sources constructed or modified after July 7, 1992 shall utilize 6-minute averaging.

Consistent with the requirements of TAPCR Chapter 1200-03-20, due allowance may be made for visible emissions in excess of that permitted under TAPCR 1200-03-05 which are necessary or unavoidable due to routine startup and shutdown conditions. The facility shall maintain a continuous, current log of all excess visible emissions showing the time at which such conditions began and ended and that such record shall be available to the Technical Secretary or his representative upon his request.

TAPCR 1200-03-05-.01(1), TAPCR 1200-03-05-.03(6) and TAPCR 1200-03-05-.02(1)

D2. **General provisions and applicability for non-process gaseous emissions.** Any person constructing or otherwise establishing a non-portable air contaminant source emitting gaseous air contaminants after April 3, 1972, or relocating an air contaminant source more than 1.0 km from the previous position after November 6, 1988, shall install and utilize the best equipment and technology currently available for controlling such gaseous emissions.

TAPCR 1200-03-06-.03(2)

D3. **Non-process emission standards.** The Permittee shall not cause, suffer, allow, or permit particulate emissions from non-process sources in excess of the standards in TAPCR 1200-03-06.

D4. **General provisions and applicability for process gaseous emissions.** Any person constructing or otherwise establishing an air contaminant source emitting gaseous air contaminants after April 3, 1972, or relocating an air contaminant source more than

1.0 km from the previous position after November 6, 1988, shall install and utilize equipment and technology which is deemed reasonable and proper by the Technical Secretary.

TAPCR 1200-03-07-.07(2)

D5. **Particulate emissions from process emission sources.** The Permittee shall not cause, suffer, allow, or permit particulate emissions from process sources in excess of the standards in TAPCR 1200-03-07.

D6. **Sulfur dioxide emission standards.** The Permittee shall not cause, suffer, allow, or permit Sulfur dioxide emissions from process and non-process sources in excess of the standards in TAPCR 1200-03-14. Regardless of the specific emission standard, new process sources shall utilize the best available control technology as deemed appropriate by the Technical Secretary of the Tennessee Air Pollution Control Board.

D7. **Fugitive Dust.**

(a) The Permittee shall not cause, suffer, allow, or permit any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, but not be limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in demolition of existing buildings or structures, construction operations, grading of roads, or the clearing of land;

2. Application of asphalt, oil, water, or suitable chemicals on dirt roads, material stock piles, and other surfaces which can create airborne dusts;

3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials. Adequate containment methods shall be employed during sandblasting or other similar operations.

(b) The Permittee shall not cause, suffer, allow, or permit fugitive dust to be emitted in such manner to exceed five (5) minutes per hour or twenty (20) minutes per day as to produce a visible emission beyond the property line of the property on which the emission originates, excluding malfunction of equipment as provided in Chapter 1200-03-20.

TAPCR 1200-03-08

D8. **Open burning.** The Permittee shall comply with the TAPCR 1200-03-04-.04 for all open burning activities at the facility.

TAPCR 1200-03-04

D9. **Asbestos.** Where applicable, the Permittee shall comply with the requirements of 1200-03-11-.02(d) when conducting any renovation or demolition activities at the facility.

TAPCR 1200-03-11-.02(d) and 40 CFR, Part 61

D10. **Annual certification of compliance.** The generally applicable requirements set forth in Section D of this permit are intended to apply to activities and sources that are not subject to source-specific applicable requirements contained in State of Tennessee and U.S. EPA regulations. By annual certification of compliance, the Permittee shall be considered to meet the monitoring and related record keeping and reporting requirements of TAPCR 1200-03-09-.02(11)(e)1.(iii) and 1200-03-10-.04(2)(b)1 and compliance requirements of TAPCR 1200-03-09-.02(11)(e)3.(i). The Permittee shall submit compliance certification for these conditions annually.

SECTION E

SOURCE SPECIFIC EMISSION STANDARDS, OPERATING LIMITATIONS, and MONITORING, RECORDKEEPING and REPORTING REQUIREMENTS

35-0006	**Source Description:**	**Natural Gas Pipeline Compressor Station:** **01: Twenty-three (23) 2-cycle (stroke) lean-burn reciprocating natural gas-fired internal combustion engines for compression of pipeline natural gas** **02: One (1) 4-cycle (stroke) lean-burn reciprocating natural gas-fired emergency generator engine** **03: One (1) natural gas-fired jacket water heater and one (1) natural gas-fired waste water evaporator**

Conditions E1 through **E3-7** apply to all sources in Section E of this permit unless otherwise noted.

E1. Fee payment:

FEE EMISSIONS SUMMARY TABLE FOR MAJOR SOURCE 35-0006

REGULATED POLLUTANTS	ALLOWABLE EMISSIONS (tons per AAP)	ACTUAL EMISSIONS (tons per AAP)	COMMENTS
PARTICULATE MATTER (PM)	N/A	AEAR	Includes or does not include all fee emissions.
PM_{10}	N/A	N/A	Includes or does not include all fee emissions.
SO_2	N/A	AEAR	Includes or does not include all fee emissions.
VOC	N/A	AEAR	Includes or does not include all fee emissions.
NO_X	N/A	AEAR	Includes or does not include all fee emissions.
CATEGORY OF MISCELLANEOUS HAZARDOUS AIR POLLUTANTS (HAP WITHOUT A STANDARD)*			
VOC FAMILY GROUP		N/A	Fee emissions are included in VOC above.
NON-VOC GASEOUS GROUP		AEAR	List the appropriate TAPCD rule or other Standard. Fee emissions are not included above
PM FAMILY GROUP		N/A	Fee emissions are included in PM above.
CATEGORY OF SPECIFIC HAZARDOUS AIR POLLUTANTS (HAP WITH A STANDARD)**			
VOC FAMILY GROUP		N/A	NESHAP (40 CFR Part ? Subpart ?). Fee emissions are included in VOC above.
NON-VOC GASEOUS GROUP		N/A	NESHAP (40 CFR Part ? Subpart ?). Fee emissions are not included above.
PM FAMILY GROUP		N/A	NESHAP (40 CFR Part ? Subpart ?). Fee emissions are included in PM above.
CATEGORY OF NSPS POLLUTANTS NOT LISTED ABOVE***			
EACH NSPS POLLUTANT NOT LISTED ABOVE		N/A	List the appropriate Standard. Fee emissions are not included above.

NOTES

AAP The **Annual Accounting Period** (**AAP**) is a twelve (12) consecutive month period that **either (a) begins each July 1st and ends June 30th of the following year when fees are paid on a fiscal year basis, or (b) begins January 1st and ends December 31st of the same year when paying on a calendar year basis.** The **Annual Accounting Period** at the time of permit renewal issuance **began July 1, 2017 and ends June 30, 2018.** The next Annual Accounting Period begins **July 1, 2018** and ends **June 30, 2019** unless a request to change the annual accounting period is submitted by the responsible official as required by subparagraph 1200-03-26-.02(9)(b) and approved by the Technical Secretary**.** If the permittee wishes to revise their annual accounting period or their annual emission fee basis as allowed by subparagraph 1200-03-26-.02(9)(b), the responsible official must submit the request to the Division in writing on or before December 31 of the annual accounting period for which the fee is due. If a change in fee basis from allowable emissions to actual emissions for any pollutant is requested, the request from the responsible official must include the methods that will be used to determine actual emissions.

N/A **N/A** indicates that no emissions are specified for fee computation.

AEAR If the permittee is paying annual emission fees on an actual emissions basis, **AEAR** indicates that an **A**ctual **E**missions **A**nalysis is **R**equired to determine the actual emissions of:

(1) **each regulated pollutant** (Particulate matter, SO_2, VOC, NO_X and so forth. See TAPCR 1200-03-26-.02(2)(i) for the definition of a regulated pollutant.),
(2) **each pollutant group** (VOC Family, Non-VOC Gaseous, and Particulate Family),
(3) the **Miscellaneous HAP Category,**
(4) the **Specific HAP Category**, and
(5) the **NSPS Category**

under consideration during the **Annual Accounting Period**.

***** **Category Of Miscellaneous HAP (HAP Without A Standard):** This category is made-up of hazardous air pollutants that do not have a federal or state standard. Each HAP is classified into one of three groups, the **VOC Family** group**, the Non-VOC Gaseous** group**,** or the **Particulate (PM) Family** group**. For fee computation**, the **Miscellaneous HAP Category** is subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i).

****** **Category Of Specific HAP (HAP With A Standard):** This category is made-up of hazardous air pollutants (HAP) that are subject to Federally promulgated Hazardous Air Pollutant Standards that can be imposed under Chapter 1200-03-11 or Chapter 1200-03-31. Each individual hazardous air pollutant is classified into one of three groups, the **VOC Family** group**, the Non-VOC Gaseous** group**,** or the **Particulate (PM) Family** group**. For fee computation**, each individual hazardous air pollutant of the **Specific HAP Category** is subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(I).

******* **Category Of NSPS Pollutants Not Listed Above:** This category is made-up of each **N**ew **S**ource **P**erformance **S**tandard (**NSPS**) pollutant whose emissions are not included in the **PM**, **SO_2, VOC** or **NO_X** emissions from each source in this permit. **For fee computation**, each **NSPS pollutant not listed above** is subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i).

END NOTES

The permittee shall:

(1) Pay Title V **annual emission fees**, on the emissions and year bases requested by the responsible official and approved by the Technical Secretary, for each annual accounting period (AAP) by the payment deadline(s) established in TAPCR 1200-03-26-.02(9)(g). Fees may be paid on an **actual**, **allowable**, or **mixed** emissions basis; and on either a **state fiscal year** or a **calendar year**, provided the requirements of 1200-03-26-.02(9)(b) are met. If any part of any fee imposed under TAPCR 1200-03-26-.02 is not paid within fifteen (15) days of the due date, penalties shall at once accrue as specified in TAPCR 1200-03-26-.02(8).

(2) Sources paying annual emissions fees on an allowable emissions basis: pay annual allowable based emission fees for each annual accounting period pursuant to TAPCR 1200-03-26-.02(9)(d).

(3) Sources paying annual emissions fees on an actual emissions basis: prepare an **actual emissions analysis** for each AAP and pay **actual based emission fees** pursuant to TAPCR 1200-03-26-.02(9)(d). The **actual emissions analysis** shall include:
(a) the completed **Fee Emissions Summary Table**,
(b) each **actual emissions analysis** required**,** and
(c) the actual emission records for each pollutant and each source as required for actual emission fee determination, or a summary of the actual emission records required for fee determination, as specified by the Technical Secretary or the Technical Secretary's representative. These calculations must be based on the annual fee basis approved by the Technical Secretary (a state fiscal year [July 1 through June 30] or a calendar year [January 1 through December 31]). These records shall be used to complete the **actual emissions analyses** required by the above **Fee Emissions Summary Table**.

(4) Sources paying annual emissions fees on a mixed emissions basis: for all pollutants and all sources for which the permittee has chosen an actual emissions basis, prepare an **actual emissions analysis** for each AAP and pay **actual based emission fees** pursuant to TAPCR 1200-03-26-.02(9)(d). The **actual emissions analysis** shall include:
(a) the completed **Fee Emissions Summary Table**,
(b) each **actual emissions analysis** required**,** and
(c) the actual emission records for each pollutant and each source as required for actual emission fee determination, or a summary of the actual emission records required for fee determination, as specified by the Technical Secretary or the Technical Secretary's representative. These calculations must be based on the fee bases approved by the Technical Secretary (payment on an actual or mixed emissions basis) and payment on a state fiscal year (July 1 through June 30) or a calendar year (January 1 through December 31). These records shall be used to complete the **actual emissions analysis**.

For all pollutants and all sources for which the permittee has chosen an allowable emissions basis, pay allowable based emission fees pursuant to TAPCR 1200-03-26-.02(9)(d).

(5) When paying on an actual or mixed emissions basis, submit the **actual emissions analyses** at the time the fees are paid in full.

The annual emission fee due dates are specified in TAPCR 1200-03-26-.02(g) and are dependent on the Responsible Official's choice of fee bases as described above. If any part of any fee imposed under TAPCR 1200-03-26-.02 is not paid within fifteen (15) days of the due date, penalties shall at once accrue as specified in TAPCR 1200-03-26-.02(8). Emissions for regulated pollutants shall not be double counted as specified in Condition A8(d) of this permit.

Payment of the fee due and the actual emissions analysis (if required) shall be submitted to The Technical Secretary at the following address:

Payment of Fee to:
The Tennessee Department of Environment and Conservation
Division of Fiscal Services
Consolidated Fee Section – APC
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 10th Floor
Nashville, Tennessee 37243

and

Actual Emissions Analyses to:
The Tennessee Department of Environment and Conservation
Division of Air Pollution Control
William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 15th Floor
Nashville, Tennessee 37243
or
An electronic copy (PDF) of actual emissions analysis can also be submitted to: apc.inventory@tn.gov

E2. **Reporting requirements**.

(a) **Semiannual reports.** In order to maintain the same reporting schedule established in the original Title V permit, the first report for this 3rd renewal shall cover the following permits and time periods:

Permit	Report period begins	Report period ends
562546 (existing)	September 17, 2012	Day before issuance date of permit 572606
572606 (renewal)	Issuance date of permit 572606	September 30, 2018

The report covering the full 6 month period shall be submitted within 60 days after September 30, 2018. Subsequent reports revert fully to permit #572606 and shall be submitted within 60 days after the end of each 6-month period following the first report. Semiannual periods continue to cover the periods October through March and April through September. All instances of deviations from permit requirements must be clearly identified in these reports and the reports must be certified by a responsible official.

These semiannual reports shall include:

(1) Any monitoring and recordkeeping required by **Condition E5-2** of this permit. However, a summary report of this data is acceptable provided there is sufficient information to enable the Technical Secretary to evaluate compliance.

(2) The visible emission evaluation readings from **Condition E3-3** of this permit, if required. However, a summary report of this data is acceptable provided there is sufficient information to enable the Technical Secretary to evaluate compliance.

(3) Identification of all instances of deviations* from **ALL PERMIT REQUIREMENTS**.

*Deviation shall mean any departure or any situation in which an emission source fails to comply with a permit term or condition. A deviation does not always constitute a Notice of Violation being issued by the Division. A deviation can be determined by observation or through review of data obtained from any testing, monitoring, or recordkeeping established in the Title V Major Source Operating Permit in accordance with TAPCR 1200-03-09-.02(11)(e). For a situation lasting more than 24 hours that constitutes a deviation, each 24 hour period is considered a separate deviation.

These reports must be certified by a responsible official consistent with Condition B4 of this permit and shall be submitted to the Technical Secretary at the address below:

The Technical Secretary
Jackson Environmental Field Office
Division of Air Pollution Control
1625 Hollywood Dr.
Jackson, TN 38305
OR APC.JackEFO@tn.gov

TAPCR 1200-03-09-.02(11)(e)1.(iii)

(b) **Annual compliance certification.** The Permittee shall submit annually compliance certifications with ALL terms and conditions contained in Sections A, B, D, & E of this permit, including emission limitations, standards, or work practices. This compliance certification shall include all of the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable):

(1) The identification of each term or condition of the permit that is the basis of the certification;

(2) The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period;

Such methods and other means shall include, at a minimum, the methods and means required by this permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Act, which prohibits knowingly making a false certification or omitting material information;

(3) The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means designated in **E2(b)2** above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion* or exceedance** as defined below occurred; and

(4) Such other facts as the Technical Secretary may require to determine the compliance status of the source.

* "Excursion" shall mean a departure from an indicator range established for monitoring under this paragraph, consistent with any averaging period specified for averaging the results of the monitoring.

** "Exceedance" shall mean a condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) are greater than the applicable emission limitation or standard (or less than the applicable standard in the case of a percent reduction requirement) consistent with any averaging period specified for averaging the results of the monitoring.

In order to maintain the same reporting schedule established in the original Title V permit, the first certification for this 3rd renewal shall cover the following permits and time periods:

Permit	Certification period begins	Certification period ends
562546 (existing)	September 17, 2012	Day before issuance date of permit 572606
572606 (renewal)	Issuance date of permit 572606	March 31, 2018

The certification covering the full 12 month period shall be submitted within 60 days after March 31, 2018. Subsequent certifications revert fully to permit #572606 and shall be submitted within 60 days after the end of each 12-month period following the first certification.

These certifications shall be submitted to: Tennessee Division of Air Pollution Control TN APCD and EPA at the following addresses:

Division of Air Pollution Control
Jackson Environmental Field Office
1625 Hollywood Drive
Jackson, TN 38305
OR APC.JackEFO@tn.gov

and

Air and EPCRA
Enforcement Branch
US EPA Region IV
61 Forsyth Street, SW
Atlanta, Georgia 30303

40 CFR Part 70.6(c)(5)(iii) as amended in the Federal Register Vol.68, No.124, June 27, 2003, pages 38518 through 38523

(c) **MACT Reports (40 CFR 63 Subpart DDDDD).** The permittee shall submit the MACT reports required by 40 CFR 63 Subpart DDDDD (Condition ***E6-1)(a) & (b)*** for source 35-0006-03). The compliance date for existing boilers and heaters subject to 40 CFR 63 Subpart DDDDD is January 31, 2016; the compliance date for new or reconstructed affected units is January 31, 2013, or the startup date, whichever is later, as provided in §63.7495(b). The permittee shall submit each report in accordance with §63.7550(h) and Table 9 of Subpart DDDDD. Permittee shall send a copy of the notification of compliance status to the following address:

Division of Air Pollution Control
West Tennessee Permit Program
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, Tennessee 37243

or E Mail to Air.Pollution.Control@tn.gov

Since affected units covered by this permit are subject to a requirement to conduct five-year tune-ups according to §63.7540(a)(12), the permittee may submit five-year compliance reports instead of semiannual compliance reports. The first compliance report must cover the period beginning on the compliance date and ending on December 31, 2020.

Pursuant to §63.7550(h)(3) the permittee shall submit all reports required by Table 9 of Subpart DDDDD electronically using CEDRI that is accessed through the EPA's Central Data Exchange (CDX) (www.epa.gov/cdx), if the reporting form specific to Subpart DDDDD is available in CEDRI at the time that the report is due. If the reporting form specific to Subpart DDDDD is not available in CEDRI at the time that the report is due, the permittee must submit the report to the Administrator at the address listed in §63.13. Reports shall be submitted in accordance with §63.7550.

(d) **Retention of Records** All records required by any condition in Section E of this permit must be retained for a period of not less than 5 years. Additionally, these records shall be kept available for inspection by the Technical Secretary or his representative.

40 CFR Part 70.6(c)(5)(iii) as amended in the Federal Register Vol.79, No.144, July 28, 2014, pages 43661 and 43667

E2-1. **Identification of Responsible Official, Technical Contact, and Billing Contact of the permitted facility:**

a) The application that was utilized in the preparation of this permit is dated March 9, 2017, and signed by Mr. Thomas C. Dender, Vice President, Operations who is the Responsible Official of the permitted facility. If this person terminates his employment or is assigned different duties such that he is no longer a Responsible Official for this facility as defined in part 1200-03-09- .02(11)(b)21 of the Tennessee Air Pollution Control Regulations, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within thirty (30) days of the change. The notification shall include the name and title of the new Responsible Official and certification of truth and accuracy. All representations, agreement to terms and conditions, and covenants made by the former Responsible Official that were used in the establishment of the permit terms and conditions will continue to be binding on the facility until such time that a revision to this permit is obtained that would change said representations, agreements, and/or covenants.

b) The application that was utilized in the preparation of this permit is dated March 9, 2017, and identifies Shrishti Chhabra – Environmental Engineer III as the Principal Technical Contact for the permitted facility. A letter dated June 5, 2017 received by the Division identifies Julia Griffin, Senior Permitting and Compliance Specialist II, as the new Principal Technical contact. If this person terminates his employment or is assigned different duties such that he is no longer the Principal Technical Contact for this facility, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within thirty (30) days of the change. The notification shall include the name and title of the new Principal Technical Contact and certification of truth and accuracy.

c) The application that was utilized in the preparation of this permit is dated March 9, 2017, and identifies Shrishti Chhabra– Environmental Engineer III as the Billing Contact for the permitted facility. A letter dated June 5, 2017 received by the Division identifies Julia Griffin, Senior Permitting and Compliance Specialist II, as the new Billing Contact. If this person terminates his employment or is assigned different duties such that he is no longer the Billing Contact for this facility, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within thirty (30) days of the change. The notification shall include the name and title of the new Billing Contact and certification of truth and accuracy.

E3. **General Permit Requirements**

E3-1. Logs and records specified in this permit shall be made available upon request by the Technical Secretary or his representative and shall be retained for a period of not less than 5 years unless otherwise noted. Logs and records contained in this permit are based on a recommended format. Any logs that have an alternative format may be utilized provided such logs contain the same information that is required. Computer-generated logs are also acceptable. Logs and records are not required to be submitted semiannually unless specified in **Condition E2(a)(1)**.

TAPCR 1200-03-09

Compliance Method: Included with the requirement.

E3-2. Regarding recordkeeping of logs, the following is applicable:

a) For monthly recordkeeping, all data, including the results of all calculations, must be entered into the log no later than 30 days from the end of the month for which the data is required.

b) For weekly recordkeeping, all data, including the results of all calculations, must be entered into the log no later than 7 days from the end of the week for which the data is required.

c) For daily recordkeeping, all data, including the results of all calculations, must be entered into the log no later than 7 days from the end of the day for which the data is required.

TAPCR 1200-03-09

Compliance Method: Maintain the recordkeeping schedule as required.

E3-3. Unless otherwise specified, visible emissions from any stack at this facility shall not exhibit greater than twenty percent (20%) opacity, except for one (1) six-minute period in any one (1) hour period, and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

TAPCR 1200-03-05-.03(6) and TAPCR 1200-03-05-.01(1)

Compliance Method: The Permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996, and amended September 11, 2013 (Attachment #1).

If the magnitude and frequency of excursions reported by the Permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

E3-4. The Permittee is not required to file an accidental release plan pursuant to Section 112(r) of the Clean Air Act and 1200-03-32 of TAPCR.

TAPCR 1200-03-32

Compliance Method: Following the requirement as identified in TAPCR 1200-03-32.

E3-5. **CAM Plan.** This facility is currently not subject to regulations under 40 CFR part 64 (Compliance Assurance Monitoring).

E3-6. This Title V Operating Permit No. 572606 represents the third renewal of the initial Title V Permit No. 546589 issued February 9, 1998; the first renewal 555662 issued June 25, 2004 and all subsequent revisions to the Title V permits requested by and/or issued to this Permittee.

Compliance Method: None. This condition identifies that this is the third renewal since the initial Title V permit.

E3-7. **40 CFR 63 Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)** Pursuant to **§63.6590(b)(3)(i)** the Permittee's twenty three (23) existing spark ignition (SI) 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake HP are not subject to any of the requirements of this subpart and of subpart A of this part, including initial notification requirements for these engines; however, the Permittee's one (1) new (installed after December 2, 2002) emergency stationary SI RICE (installed in 2015) with a site rating of greater than 500 brake HP is subject to this subpart as indicated in **Condition E5-9**.

Compliance Method: None. This is for informational purposes only. The Permittee must meet all requirements that are applicable.

E4. **Emission Source 35-0006-01**

35-0006-01	**Source Description**	**Twenty-three (23) 2-cycle (stroke) lean-burn reciprocating natural gas-fired internal combustion engines for compression of pipeline natural gas.**

Conditions E4-1 through E4-7 apply to source 35-0006-01

E4-1. The unit #, model, stated design heat input, and power output capacities of the twenty-three (23) 2-cycle lean-burn reciprocating natural gas-fired compressor engines are as follows:

Unit #	Model	Rated Heat Input (HHV) (MMBtu/hr)	Rated Power Output (horsepower)
1A	Clark BA-6MC	14.62	1,300
2A	Clark BA-6MC	14.62	1,300
3A	Clark BA-6MC	14.62	1,300
4A	Clark BA-6MC	14.62	1,300
5A	Clark BA-6MC	14.62	1,300
6A	Clark BA-6MC	14.62	1,300
7A	Clark BA-6MC	14.62	1,300
8A	Clark BA-6MC	14.62	1,300
9A	Clark BA-6MC	14.62	1,300
1B	Clark BA-8	20.65	1,700
2B	Clark BA-8	20.65	1,700
3B	Clark BA-8	20.65	1,700
4B	Clark BA-8	20.65	1,700
5B	Clark BA-8	20.65	1,700
6B	Clark BA-8	20.65	1,700
7B	Clark BA-8	20.65	1,700
8B	Clark TRA-8T	14.44	1,450
1C	Clark HBA-6FT	16.86	1,550
2C	Clark HBA-6FT	16.86	1,550
3C	Clark HBA-6FT	16.86	1,550
4C	Clark HBA-6FT	16.86	1,550
5C	Clark HBA-6FT	16.86	1,550
6C	Clark HBA-6FT	16.86	1,550

TAPCR 1200-03-09

Compliance method: None. This condition is a statement of the identification and design input capacity for this source. If the Permittee wishes to change, replace and or add new engines, increase the design input or maximum capacity of this source, the Permittee shall pursue the appropriate Title V procedure in accordance with 1200-03-09-.02(11) of the TAPCR. If a construction permit is applied for, this shall be done in accordance with 1200-03-09-.01(1) of the TAPCR.

E4-2. Only natural gas shall be used as fuel for this source.

TAPCR 1200-03-09

Compliance Method: Compliance is assured since the Permittee only utilizes pipeline quality gas to power these engines. The Permittee operates under the obligations of a FERC tariff that limits sulfur content in the transported gas to less than 20 grains of total sulfur per 100 standard cubic feet.

E4-3. Particulate matter emitted from this source shall not exceed 18.92 pounds per hour, equivalent to 82.89 tons per year. This limitation is established pursuant to TAPCR 1200-03-26-.02(9)(g) and the information contained in the agreement letter dated June 5, 2012, from the Permittee.

Compliance Method: Compliance with this emission standard is based on emission factors from EPA AP-42, Table 3.2-1 dated July 2000 (Attachment #2).

E4-4. Sulfur dioxide emitted from this source shall not exceed 0.23 pound per hour, equivalent to 1.01 tons per year. This limitation is established pursuant to TAPCR 1200-03-26-.02(9)(g) and the information contained in the agreement letter dated June 5, 2012, from the Permittee natural gas and emission factors from EPA AP-42 Table 3.2-1 dated July 2000 (Attachment #2).

Compliance Method: Compliance with this emission standard is assured based on the maximum sulfur content of the natural gas in the TGP pipelines.

E4-5. One or more of the compressor engines may be removed and/or replaced with repaired or refurbished equivalent capacity engines in order to maintain gas delivery capacity.

Compliance Method: Records shall be maintained on site of such changes and shall be entered into a log no later than a week after the unit is replaced in accordance with **Condition E3-2**. If the replacement engine(s) are retained on a permanent basis the Permittee shall notify the Division in writing and submit an application to the Division if the unit is subject to any applicable federal requirements including MACT, NSPS etc.

E4-6. Portable compressor engines, such as Allison KV501, Solar Centaur or Solar Saturn, may be used on an interim basis (up to three months) to temporarily replace the existing unit (or units) under maintenance or repair.

Compliance Method: Records shall be maintained on site of such changes and entered into a log within a week after the unit is put in temporary replacement for repair or maintenance and also a record must be entered no later than one week after the temporary unit is removed and the existing unit has resumed operation. Both types of log entries shall be made in accordance with **Condition E3-2**.

E4-7. For the purpose of calculating actual emissions for fee purposes, the Permittee shall maintain records of hours of operation, horsepower-hours (the amount of attained horsepower per hour summed over each hour of operation), and natural gas usage for each of the engines. These records shall be kept for a period of no less than five years and shall be made available to the Technical Secretary or his representative upon request.

For fee purposes, the Permittee shall calculate actual oxides of nitrogen (NO_x) emissions, particulate matter (PM) emissions, sulfur dioxide (SO_2) emissions, and volatile organic compound (VOC) emissions from engine units for each fiscal year using engine operating hours, actual horsepower, natural gas usage, and EPA AP-42 emission factors for the 4-cycle (stroke) lean-burn engines (Attachment #2) or specific engine test data or a combination of both. The results of these calculations shall be recorded, maintained, and entered in Log 1 specifying the specific emission factors and basis for calculations. If more recent emission factors or test data is used, the basis for such factors shall be provided. These records shall be retained for a period of not less than five (5) years. These records shall be reported in accordance with **Condition E1** of this permit.

Log 1 Fiscal Year Log of total emissions from compressor engines for fee purposes

From July 1, _____ through June 30, _____

Unit	Natural Gas Usage (MM SCF)	Rated Power Output (hp)	Hours Operated (hours)	Horsepower -Hours (hp-hr)	Fuel Heating Value (HHV) (btu/scf)	Pollutant	Emission Factor and Basis	Emissions (tons/fiscal year)
1A						NO_x		
						SO_2		
						PM		
						VOC		
						Non-VOC HAPs		
2A						NOx		
						SO2		
						PM		
						VOC		
						Non-VOC HAPs		
etc.						NO_x		
						SO_2		

						PM		
						VOC		
						Non-VOC HAPs		

E5. Emission Source 35-0006-02

35-0006-02	**Source Description**	**One (1) 4-cycle (stroke) lean-burn reciprocating natural gas-fired emergency generator engine. (installed in 2015)** **NESHAP 40 CFR Part 63 Subpart ZZZZ for major sources of HAPs applies** **NSPS 40 CFR Part 60 Subpart JJJJ applies**

Conditions E5-1 through E5-12 apply to source 35-0006-02

E5-1. The unit #, model, stated design heat input, and power output capacity of one (1) natural gas-fired emergency engine is as follows:

Unit #	**Model**	**Rated Heat Input (HHV)** (MMBtu/hr)	**Rated Power Output** (horsepower)
A-Aux-5	Caterpillar	21.03	2,889

TAPCR 1200-03-09

Compliance Method: None. This condition is a statement of the identification and design input capacity for this source. If the Permittee wishes to change, replace and or add new engines, increase the design input or maximum capacity of this source, the Permittee shall pursue the appropriate Title V procedure in accordance with 1200-03-09-.02(11) of the TAPCR. If a construction permit is applied for, this shall be done in accordance with 1200-03-09-.01(1) of the TAPCR.

E5-2. This emergency generator engine shall not operate more than 500 hours per calendar year based on the minor permit modification request dated November 18, 2014, from the Permittee.

Compliance Method: Compliance shall be assured by maintaining **Log 3** of Condition **E5-7(g)**

TAPCR 1200-03-09

E5-3. Only natural gas shall be used as fuel for this source.

TAPCR 1200-03-14-.03(5)

Compliance Method: Compliance is assured since the Permittee only utilizes pipeline quality natural gas to power this engine. The Permittee operates under the obligations of a FERC tariff that limits sulfur content in the transported gas to less than 20 grains of total sulfur per 100 standard cubic feet.

E5-4. Particulate matter emitted from this source shall not exceed 0.4 pounds per million British thermal unit of heat input, (8.4 pounds per hour). This limitation is established pursuant to TAPCR 1200-03-26-.02(9)(g) and the information contained in the minor permit modification request dated November 18, 2014, from the Permittee.

Compliance Method: Compliance with this emission standard is based on emission factors from EPA AP-42 Table 3.2-2 dated July 2000 (Attachment #2).

E5-5. Sulfur dioxide emitted from this source shall not exceed 0.012 pound per hour, equivalent to 0.003 ton per year. This limitation is established pursuant to TAPCR 1200-03-26-.02(9)(g) and the information contained in the minor permit modification request dated November 18, 2014, from the Permittee.

Compliance Method: Compliance with this emission standard is assured based on the maximum sulfur content of the natural gas and emission factors from EPA AP-42 Table 3.2-2 dated July 2000 (Attachment #2).

E5-6. For the purpose of calculating actual emissions for fee purposes, the Permittee shall maintain records of hours of operation, and natural gas usage for the engine. These records shall be kept for a period of no less than five years and shall be made available to the Technical Secretary or his representative upon request.

For fee purposes, the Permittee may calculate actual oxides of nitrogen (NO_x) emissions, particulate matter (PM) emissions, sulfur dioxide (SO_2) emissions, and volatile organic compound (VOC) emissions from the engine for each fiscal year (July 1 through June 30) using engine operating hours, actual or rated horsepower, natural gas usage, and EPA AP-42 emission factors for the 4-cycle (stroke) lean-burn engines (Attachment #2) or specific engine emission test data or a combination of both. The results of these calculations shall be recorded, maintained, and entered in Log 2 specifying the specific emission factors and basis for calculations. If more recent emission factors or test data is used, the basis for such factors shall be provided. These records shall be retained for a period of not less than five (5) years. These records shall be reported in accordance with **Condition E1** of this permit.

Log 2: Fiscal Year Log of total emissions from the one (1) emergency engine for fee purposes

From July 1, _____ through June 30, _____

Unit #	**Natural Gas Usage** (MMSCF)	**Rated Power Output** (hp)	**Hours Operated** (hours)	**Horsepower -Hours** (hp-hr)	**Fuel Heating Value (HHV)** (btu/scf)	**Pollutant**	**Emission Factor and Basis**	**Emissions** (tons/fiscal year)
A-Aux-5						NO_x		
						SO_2		
						PM		
						VOC		
						Non-VOC HAPs		

E5-7. This new (manufactured after January 1, 2009) emergency engine is subject to regulations under 40 CFR 60 Subpart JJJJ – **STANDARDS OF PERFORMANCE FOR STATIONARY SPARK IGNITION INTERNAL COMBUSTION ENGINES**, including any and/or all applicable emission limitations, notifications, compliance options, records, reports, etc. as referenced below in this condition. The permittee's engine identified below shall be in compliance with the following requirements **(a) through (j)** below:

Engine Make/Model	**Engine Model YR**	**Engine Power (b-hp)**
Caterpillar G3520C IM	2015	2,889

(a) Pursuant to 40 CFR §60.4233(e) and §60.4234, the emergency engine must comply with the emission standards in table 1 to subpart JJJJ as shown below. The permittee must operate and maintain the engine to achieve these emission standards over the entire life of the engine.

Maximum engine power	**Manufacture date**	**NO_X**	**CO**	**VOC***
HP>=130	1/1/2009+	2.0 g/hp-hr or 160 ppmvd at 15% O_2	4.0 g/hp-hr or 540 ppmvd at 15% O_2	1.0 g/hp-hr or 86 ppmvd at 15% O_2

*For purposes of 40 CFR Part 60 Subpart JJJJ, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

(b) The permittee shall install a non-resettable hour meter if the unit does not meet standards applicable to non-emergency engines specified in 40 CFR §60.4237(a)

(c) Pursuant to 40 CFR §60.4243(b)(2), the permittee will comply by purchasing a non-certified engine and demonstrating compliance with the emission standards specified in §60.4233(d) or (e) and according to the requirements specified in §60.4244, as applicable, and according to the requirements of paragraph §60.4243(b)(2)(ii).
Pursuant to §60.4243 (b)(2) (ii) the permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution

control practice for minimizing emissions. In addition, the permittee must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance. Note that 40 CFR 60.8 (a) requires an initial performance test within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility.

(d) Pursuant to 40 CFR §60.4243(d), the permittee must operate the emergency stationary ICE according to the following requirements. In order for the engine to be considered an emergency stationary ICE, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described below, is prohibited. If the engine is not operated according to the following requirements, the engine will not be considered an emergency engine and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) The permittee may operate the emergency stationary ICE for any combination of the purposes specified in **(i) through (iii)** below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by **Condition E5-7(d)(3)** counts as part of the 100 hours per calendar year allowed by this **Condition E5-7(d)(2)**.

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see § 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in **Condition E5-7(d)(2)** above. Except as provided in (i) below, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for

dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the permittee.

(e) Pursuant to §60.4244, if the permittee conducts any performance tests of this stationary SI ICE, they must follow the procedures in paragraphs (a) through (f) of this section.

(a) Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in §60.8 and under the specific conditions that are specified by Table 2 to this subpart.

(b) The permittee may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). If the stationary SI internal combustion engine is non-operational, it is not required to startup the engine solely to conduct a performance test; however, the performance test must be conducted immediately upon startup of the engine.

(c) The permittee must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.

(d) To determine compliance with the NO_X mass per unit output emission limitation, convert the concentration of NO_X in the engine exhaust using Equation 1 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{HP - hr} \quad \text{(Eq. 1)}$$

Where:
ER = Emission rate of NO_X in g/HP-hr.
C_d = Measured NO_X concentration in parts per million by volume (ppmv).
1.912×10^{-3} = Conversion constant for ppm NO_X to grams per standard cubic meter at 20 degrees Celsius.
Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.
T = Time of test run, in hours.
HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

(e) To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of this section:

$$ER = \frac{C_d \times 1.164 \times 10^{-3} \times Q \times T}{HP - hr} \quad \text{(Eq. 2)}$$

Where:
ER = Emission rate of CO in g/HP-hr.
C_d = Measured CO concentration in ppmv.
1.164×10^{-3} = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.
Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.
T = Time of test run, in hours.
HP-hr = Brake work of the engine, in HP-hr.

(f) For purposes of this subpart, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of this section:

$$ER = \frac{C_d \times 1.833 \times 10^{-3} \times Q \times T}{HP - hr} \quad \text{(Eq. 3)}$$

Where:
ER = Emission rate of VOC in g/HP-hr.

C_d = VOC concentration measured as propane in ppmv.
1.833×10^{-3} = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.
Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.
T = Time of test run, in hours.
HP-hr = Brake work of the engine, in HP-hr.

(g) If the owner/operator chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of this section. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of this section.

$$RF_i = \frac{C_{Mi}}{C_{Ai}} \qquad \text{(Eq. 4)}$$

Where:
RF_i = Response factor of compound i when measured with EPA Method 25A.
C_{Mi} = Measured concentration of compound i in ppmv as carbon.
C_{Ai} = True concentration of compound i in ppmv as carbon.

$$C_{icorr} = RF_i \times C_{imeas} \qquad \text{(Eq. 5)}$$

Where:
C_{icorr} = Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.
C_{imeas} = Concentration of compound i measured by EPA Method 320, ppmv as carbon.

$$C_{Peq} = 0.6098 \times C_{icorr} \qquad \text{(Eq. 6)}$$

Where:
C_{Peq} = Concentration of compound i in mg of propane equivalent per DSCM.

(f) Pursuant to §60.4245(a), the permittee must keep records of (1) through (4) as follows:

(1) All notifications submitted to comply with this subpart and all documentation supporting any notification.
(2) Maintenance conducted on the engine.
(3) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.
(4) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to § 60.4243(a)(2), documentation that the engine meets the emission standards.

(g) Pursuant to 40 CFR §60.4245(b), if the engine does not meet the standards applicable to non-emergency engines, the permittee must keep records of the hours of operation of the engine and document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation (see example below). All data must be entered in a log no later than 30 days from the end of the month for which the data is required. This log must be retained for a period of not less than five (5) years.

Log 3: **Example Operation Log** for Source **35-0006-02** Year_____

Date	Operating Hours				
	Maintenance	Readiness Testing	Other Non-Emergency	Emergency	Reason for Emergency Operation
Yearly Total					

(h) Pursuant to 40 CFR §60.4245(c), owners and operators of stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in §60.4231 must submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (c)(1) through (5) of this section.

(1) Name and address of the owner or operator;
(2) The address of the affected source;
(3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
(4) Emission control equipment; and
(5) Fuel used.

(i) Pursuant to 40 CFR §60.4245(d), owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test conducted in 40 CFR §60.4244 within 60 days after the test has been completed. The test report shall be submitted by electronic format to Air.Pollution.Control@tn.gov

(j) Pursuant to 40 CFR §60.4245(e), if the engine operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in **Condition E5-7(d)(2)(ii) and (iii)** or that operates for the purposes specified in **Condition E5-7(d)(3)(i)**, the permittee must submit an annual report according to the following requirements:

(1) The report must contain the following information:

(i) Company name and address where the engine is located.
(ii) Date of the report and beginning and ending dates of the reporting period.
(iii) Engine site rating and model year.
(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.
(v) Hours operated for the purposes specified in **Condition E5-7(d)(2)(ii) and (iii)**, including the date, start time, and end time for engine operation for the purposes specified in **Condition E5-7(d)(2)(ii) and (iii)**.
(vi) Number of hours the engine is contractually obligated to be available for the purposes specified in **Condition E5-7(d)(2)(ii) and (iii)**.
(vii) Hours spent for operation for the purposes specified in **Condition 5-7(d)(3)(i)**, including the date, start time, and end time for engine operation for the purposes specified in **Condition 5-7(d)(3)(i)**. The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

(3) The annual report must be submitted electronically using CEDRI that is accessed through the EPA's Central Data Exchange (CDX) (www.epa.gov/cdx)
40 CFR §60.4245(e)(3)

E5-8. The permittee has designated this source as an emergency engine. According to a memorandum dated September 6, 1995 from John Seitz, Director, Office of Air Quality Planning and Standards, "EPA believes that 500 hours is an appropriate default assumption for estimating the number of hours that an emergency generator could be expected to operate under worst-case conditions." This value (500 hours) will be assumed to be the maximum operating hours per calendar year for this source for the purpose of establishing a "potential to emit" for the facility for the pollutants of concern for the engine specified in **Condition E5-7** and 40 CFR §60.4243(d). The 500-hour value includes the 100 hours per year for maintenance checks and readiness testing as specified in **Condition E5-7(d)** and 40 CFR §60.4243(d). In the event the unit operates more than 500 hours during a period of a calendar year, the total annual hours of operation shall be reported to the Technical Secretary within 30 days of the end of the calendar year, along with the amount of fuel used, and actual emissions from this unit.

E5-9. This facility is subject to all applicable requirements of 40 CFR 63 Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. This includes, but is not restricted to, those requirements as specified in this permit. Under the provisions of 40 CFR §63.6600 (c), an emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions does not need to comply with the emission limitations in Tables 1a, 2a, 2c, and 2d or operating limitations in Tables 1b and 2b to 40 CFR 63 subpart ZZZZ.

E5-10. Pursuant to the provisions 40 CFR §63.6605, the permittee shall demonstrate continuous compliance with applicable provisions of Subpart ZZZZ as indicated:

(a) The facility must be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply to the facility at all times.

(b) At all times the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

E5-11. Pursuant to the provisions of 40 CFR §63.6640 (f), the permittee shall demonstrate continuous compliance with applicable provisions of Subpart ZZZZ as indicated:

The permittee must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (3) of this condition. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of this section, is prohibited. If the permittee does not operate the engine according to the requirements in paragraphs (f)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary RICE in emergency situations.

(2) The permittee may operate this emergency stationary RICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

(ii) Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

E5-12. Pursuant to the provisions of §63.6645 (c), a permittee that starts up a new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions on or after August 16, 2004 must submit an Initial Notification not later than 120 days after becoming subject to 40 CFR 63 Subpart ZZZZ.

E6. Emission Source 35-0006-03

35-0006-03	**Source Description**	**One (1) natural gas-fired jacket water heater, 4 MMBtu/hr and one (1) natural gas-fired waste water evaporator, 1.25 MMBtu/hr** **NESHAP 40 CFR Part 63 Subpart DDDDD for major source of HAPs apply**

Conditions E6-1 through E6-8 apply to source 35-0006-03

E6-1. Boilers and process heaters located at a major source of hazardous air pollutants are subject to 40 CFR Part 63 Subpart DDDDD, **NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR MAJOR SOURCES: INDUSTRIAL, COMMERCIAL, AND INSTITUTIONAL BOILERS AND PROCESS HEATERS**, including any and/or all applicable emission limitations, notifications, compliance options, records, reports, etc. as summarized, but not limited to the following in this condition. Pursuant to 40 CFR §63.7495, existing boilers and process heaters (construction commenced before June 4, 2010) shall be in compliance by January 31, 2016; new or reconstructed boiler or process heater must comply with this subpart by January 31, 2013, or upon startup, whichever is later. The jacket water heater and waste water evaporator are existing affected units at this facility.

(a) Pursuant to 40 CFR §63.7530(f) and 63.7545(a), as applicable, the permittee must submit all of the notifications in §63.7(b) and (c), §63.8(e), (f)(4) and (6), and §63.9(b) through (h), including the Notification of Compliance Status containing the results of the initial compliance demonstration.

(b) Pursuant to 40 CFR §63.7550, the permittee may submit annual, biennial, and/or 5-year, 40 CFR 63 Subpart DDDDD compliance reports, whichever are applicable, in lieu of semiannual reports. The initial 40 CFR 63 Subpart DDDDD compliance report(s) must cover the period beginning on the compliance date specified for each boiler or process heater in §63.7495 and ending on the date specified in §63.7550(b), which is the first date that occurs at least 1, 2, or 5 years, as applicable, if submitting an annual, biennial, or 5-year compliance report after the

compliance date that is specified for your source in §63.7495. The initial and subsequent reports must be postmarked or delivered no later than January 31 after the report period ends.

Note: See MACT reporting requirements specified in condition E2(c).

(c) Pursuant to 40 CFR §63.7545(f), if the Permittee intends to use a fuel other than natural gas, refinery gas, or other gas 1 fuel to fire the affected unit during a period of natural gas curtailment or supply interruption, as defined in §63.7575, the Permittee must submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption as defined in §63.7575. The notification must include the information specified in (1) through (5) below.

(1) Company name and address.
(2) Identification of the affected unit.
(3) Reason for inability to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began.
(4) Type of alternative fuel that the Permittee intends to use.
(5) Dates when the alternative fuel use is expected to begin and end.

(d) Pursuant to 40 CFR §63.7555 and §63.7560, the permittee must keep records pertaining to 40 CFR 63 Subpart DDDDD in a form suitable and readily available for expeditious review, according to §63.10(b)(1). The permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. Each record must be kept on site, or they must be accessible from onsite (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). Records may be kept off site for the remaining 3 years.

E6-2. Existing boilers and process heaters, must comply with 40 CFR 63 Subpart DDDDD by no later than January 31, 2016, except as provided in §63.6(i). §63.7495(b).

This source consists of one (1) existing natural- gas fired jacket water heater designated as 71-HEATER-01 and one (1) existing natural -gas fired waste water evaporator designated as 71-HEATER-20 with nominal heat inputs as follows:

Heaters	Type of Fuel	Year of installation	Rated Heat Input Capacity MMBtu/Hr
Jacket Water Heater -71-HEATER-01	NG-fired	1986	4.0
Waste Water Evaporator -71-HEATER-20	NG-fired	2003	1.25

TAPCR 1200-03-09-.01(1)(d)

Emission Limitations, Work Practice Standards, and Operating Limits

E6-3. **Boilers and process heaters in the units designed to burn gas 1 fuels (e.g. natural gas) subcategory with a heat input capacity of less than or equal to 5 million Btu per hour must complete a tune-up every 5 years as specified in §63.7540**. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory with a heat input capacity greater than 5 million Btu per hour and less than 10 million Btu per hour must complete a tune-up every 2 years as specified in §63.7540**. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory are not subject to the emission limits in Tables 1 and 2 or 12 and 13 to this subpart, or the operating limits in Table 4 to this subpart.** §63.7500(e)

Compliance Method: Compliance is assured by using only pipeline quality natural gas as fuel and conducting tune-ups every 5 years.

E6-4. The permittee must meet the applicable work practice standards in Table 3 to subpart DDDDD for each existing affected unit designed to burn gas 1 type fuel in accordance with 40 CFR §63.7500:

If the unit is . . .	The permittee must. . .
An existing boiler or process heater located at a major source facility, not including limited use units. **APPLICABLE** Jacket Water Heater-71-HEATER-01 Waste Water Evaporator -71-HEATER-20	Have a one-time energy assessment performed by a qualified energy assessor according to § 63.7530(e). The energy assessment must include the items a. through h. as found at item 4 of Table 3 as appropriate for the on-site technical hours listed in § 63.7575. Conduct an initial tune-up of the boiler or process as specified in § 63.7540 by January 31, 2016. Submit reports in accordance with§ 63.7550. ***** Also see tune-up requirements for subject units as specified at E6-5

Compliance Method: Have a one-time energy assessment performed by a qualified energy assessor according to § 63.7530(e). The energy assessment must include the items a. through h. as found at item 4 of Table 3.

Compliance Method: Have an initial tune-up performed according to § 63.7510(e).

E6-5. (a) Pursuant to 40 CFR §63.7540(a)(12), the Permittee must conduct a tune-up of any subject boiler and any subject process heater every 5 years to demonstrate continuous compliance as specified in §63.7540(a)(10)(i) through §63.7540(a)(10)(vi) which is listed as (1) through (6) below.

(1) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the Permittee may delay the burner inspection until the next scheduled unit shutdown);
(2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
(3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly; (the Permittee may delay the burner inspection until the next scheduled unit shutdown);
(4) Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available; and with any NOx requirement to which the unit is subject
(5) Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made); Measurements may be taken using a portable CO analyzer; and
(6) Maintain on-site and submit, if requested by the Technical Secretary, an annual report containing the information in §63.7540(a)(10)(vi)(A) through (C), which is listed as (i) through (iii) below:

(i) The concentrations of carbon monoxide in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;
(ii) A description of any corrective actions taken as a part of the tune-up; and
(iii) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.

(b) Pursuant to 40 CFR §63.7540(a)(13), if the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.

(c) Pursuant to 40 CFR §63.7540(b), the Permittee must report each instance in which the work practice standard in Table 3 to subpart DDDDD was not met. These instances are deviations from the emission limit and operating limit in this subpart. These deviations must be reported according to the requirements in 40 CFR §63.7550.

(d) Pursuant to 40 CFR §63.7515(d), the Permittee must conduct a 5 year performance tune-ups per §63.7540(a)(12). Each 5-year tune-up must be no more than 61 months after the previous tune-up.

Compliance Method: Conduct tune-ups every 5 years.

E6-6. Only natural gas shall be used as fuel for the jacket water heater and one waste water evaporator.

Compliance Method: Compliance is assured by using only pipeline quality natural gas.

E6-7. Particulate matter emitted from this fuel burning installation shall not exceed 0.6 lb/MMBtu of heat input (3.15 lb/hr).

TAPCR 1200-03-06-.02

Compliance Method: This is a fuel burning installation whose potential to emit particulate matter is less than five tons per year. By annual certification of compliance, the permittee shall be considered to meet the monitoring and related recordkeeping and reporting requirements of TAPCR 1200-03-09-.02(11)(e)(1.(iii) and 1200-3-10-.04(2)(b)1., and the compliance requirements of TAPCR 1200-03-09-.02(11)(e)3.(i)

E6-8. For fee purposes, the permittee shall calculate its actual nitrogen oxides (NO_x) emissions, particulate matter (PM) emissions, sulfur dioxide (SO_2) emissions, and volatile organic compound (VOC) emissions for each fiscal year from this fuel-burning source using EPA, AP-42 emission factors and fuel usage records. The results of these calculations shall be recorded and maintained in tabular form and shall be reported in accordance with **Condition E1** of this permit.

Compliance Method: Complete calculations of NO_x, PM, SO_2, and VOC emissions for fee purposes using EPA AP-42 emission factors and fuel usage records and report them in accordance with Condition E1 of this permit.

END OF PERMIT 572606

ATTACHMENT #1

OPACITY MATRIX DECISION TREE for VISIBLE EMISSION EVALUATION METHOD 9 dated June 18, 1996 and amended September 11, 2013

Decision Tree PM for Opacity for Sources Utilizing EPA Method 9*

Notes:

PM = Periodic Monitoring required by 1200-03-09-.02(11)(e)(iii).

This Decision Tree outlines the criteria by which major sources can meet the periodic monitoring and testing requirements of Title V for demonstrating compliance with the visible emission standards in paragraph 1200-03-05-.01. It is not intended to determine compliance requirements for EPA's Compliance Assurance Monitoring (CAM) Rule (formerly referred to as Enhanced Monitoring – Proposed 40 CFR 64).

Examine each emission unit using this Decision Tree to determine the PM required.*

Use of continuous emission monitoring systems eliminates the need to do any additional periodic monitoring.

Visible Emission Evaluations (VEEs) are to be conducted utilizing EPA Method 9. The observer must be properly certified to conduct valid evaluations.

Typical Pollutants
Particulates, VOC, CO, SO_2, NO_x, HCl, HF, HBr, Ammonia, and Methane.

Initial observations are to be repeated within 90 days of startup of a modified source, if a new construction permit is issued for modification of the source.

A VEE conducted by TAPCD personnel after the Title V permit is issued will also constitute an initial reading.

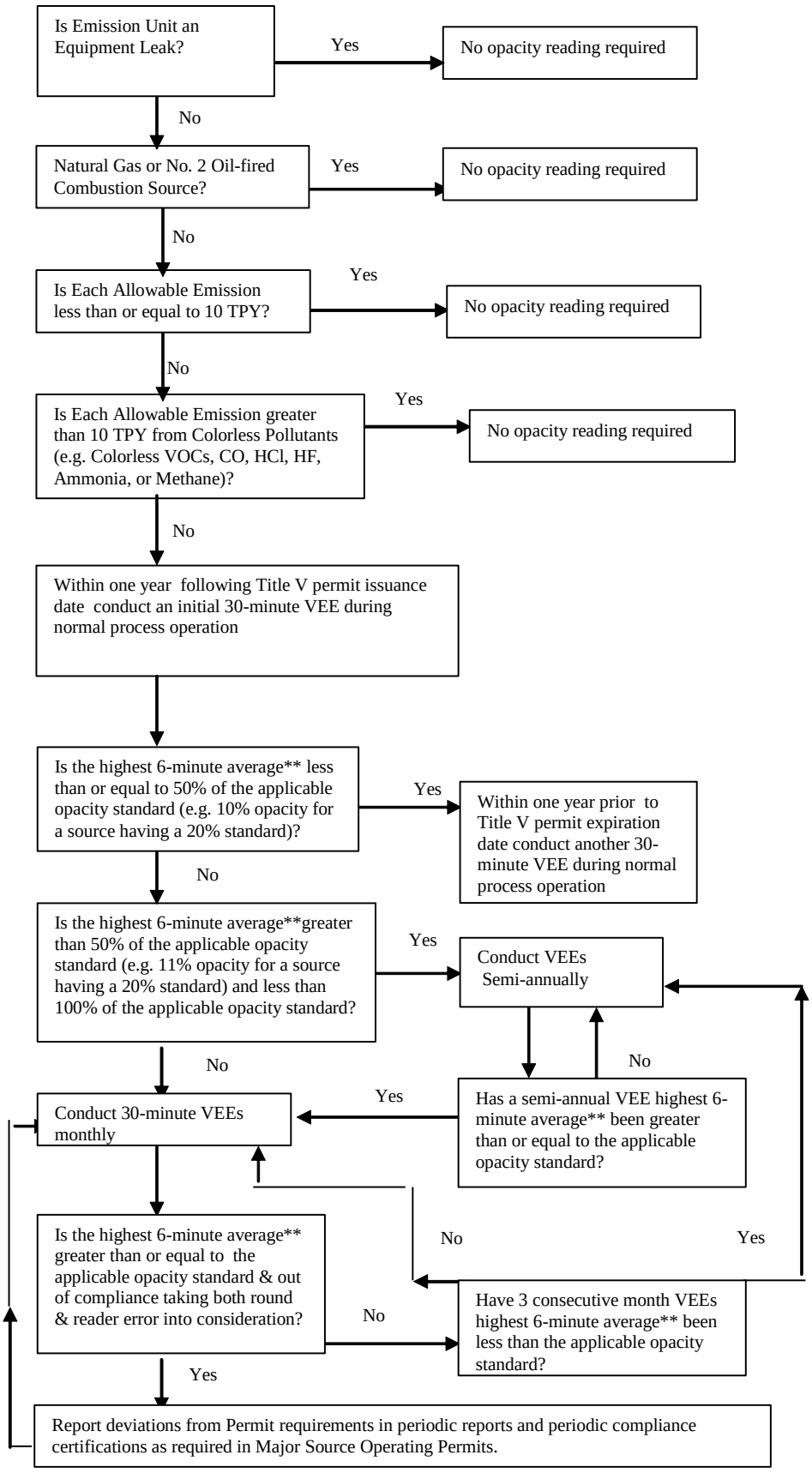
Reader Error
EPA Method 9, Non-NSPS or NESHAPS stipulated opacity standards:
The TAPCD guidance is to declares non-compliance when the highest six-minute average** exceeds the standard plus 6.8% opacity (e.g. 26.8% for a 20% standard).

EPA Method 9, NSPS or NESHAPS stipulate opacity standards:
EPA guidance is to allow only engineering round. No allowance for reader error is given.

*Not applicable to Asbestos manufacturing subject to 40 CFR 61.142

**Or second highest six-minute average, if the source has an exemption period stipulated in either the regulations or in the permit.

Dated June 18, 1996
Amended September 11, 2013



ATTACHMENT #2

EPA AP-42 FIFTH EDITION, VOLUME I
CHAPTER 3, STATIONARY INTERNAL COMBUSTION SOURCES

NATURAL GAS-FIRED RECIPROCATING ENGINES

UNCONTROLLED EMISSION FACTORS FOR 4-STROKE LEAN-BURN ENGINES

dated July 2000

TABLE 3.2-1 UNCONTROLLED EMISSION FACTORS FOR 2-STROKE LEAN-BURN ENGINES[a]
(SCC 2-02-002-52)

Pollutant	Emission Factor (lb/MMBtu)[b] (fuel input)	Emission Factor Rating
Criteria Pollutants and Greenhouse Gases		
NO_x[c] 90 - 105% Load	3.17 E+00	A
NO_x[c] <90% Load	1.94 E+00	A
CO[c] 90 - 105% Load	3.86 E-01	A
CO[c] <90% Load	3.53 E-01	A
CO_2[d]	1.10 E+02	A
SO_2[e]	5.88 E-04	A
TOC[f]	1.64 E+00	A
Methane[g]	1.45 E+00	C
VOC[h]	1.20 E-01	C
PM10 (filterable)[i]	3.84 E-02	C
PM2.5 (filterable)[i]	3.84 E-02	C
PM Condensable[j]	9.91 E-03	E
Trace Organic Compounds		
1,1,2,2-Tetrachloroethane[k]	6.63 E-05	C
1,1,2-Trichloroethane[k]	5.27 E-05	C
1,1-Dichloroethane	3.91 E-05	C
1,2,3-Trimethylbenzene	3.54 E-05	D
1,2,4-Trimethylbenzene	1.11 E-04	C
1,2-Dichloroethane	4.22 E-05	D
1,2-Dichloropropane	4.46 E-05	C
1,3,5-Trimethylbenzene	1.80 E-05	D
1,3-Butadiene[k]	8.20 E-04	D
1,3-Dichloropropene[k]	4.38 E-05	C
2,2,4-Trimethylpentane[k]	8.46 E-04	B
2-Methylnaphthalene[k]	2.14 E-05	C
Acenaphthene[k]	1.33 E-06	C

Table 3.2-1. UNCONTROLLED EMISSION FACTORS FOR 2-STROKE LEAN-BURN ENGINES

(Continued)

Pollutant	Emission Factor (lb/MMBtu)[b] (fuel input)	Emission Factor Rating
Acenaphthylene[k]	3.17 E-06	C
Acetaldehyde[k,l]	7.76 E-03	A
Acrolein[k,l]	7.78 E-03	A
Anthracene[k]	7.18 E-07	C
Benz(a)anthracene[k]	3.36 E-07	C
Benzene[k]	1.94 E-03	A
Benzo(a)pyrene[k]	5.68 E-09	D
Benzo(b)fluoranthene[k]	8.51 E-09	D
Benzo(e)pyrene[k]	2.34 E-08	D
Benzo(g,h,i)perylene[k]	2.48 E-08	D
Benzo(k)fluoranthene[k]	4.26 E-09	D
Biphenyl[k]	3.95 E-06	C
Butane	4.75 E-03	C
Butyr/Isobutyraldehyde	4.37 E-04	C
Carbon Tetrachloride[k]	6.07 E-05	C
Chlorobenzene[k]	4.44 E-05	C
Chloroform[k]	4.71 E-05	C
Chrysene[k]	6.72 E-07	C
Cyclohexane	3.08 E-04	C
Cyclopentane	9.47 E-05	C
Ethane	7.09 E-02	A
Ethylbenzene[k]	1.08 E-04	B
Ethylene Dibromide[k]	7.34 E-05	C
Fluoranthene[k]	3.61 E-07	C
Fluorene[k]	1.69 E-06	C
Formaldehyde[k,l]	5.52 E-02	A

Table 3.2-1. UNCONTROLLED EMISSION FACTORS FOR 2-STROKE LEAN-BURN ENGINES
(Concluded)

Pollutant	Emission Factor (lb/MMBtu)[b] (fuel input)	Emission Factor Rating
Indeno(1,2,3-c,d)pyrene[k]	9.93 E-09	D
Isobutane	3.75 E-03	C
Methanol[k]	2.48 E-03	A
Methylcyclohexane	3.38 E-04	C
Methylene Chloride[k]	1.47 E-04	C
n-Hexane[k]	4.45 E-04	C
n-Nonane	3.08 E-05	C
n-Octane	7.44 E-05	C
n-Pentane	1.53 E-03	C
Naphthalene[k]	9.63 E-05	C
PAH[k]	1.34 E-04	D
Perylene[k]	4.97 E-09	D
Phenanthrene[k]	3.53 E-06	C
Phenol[k]	4.21 E-05	C
Propane	2.87 E-02	C
Pyrene[k]	5.84 E-07	C
Styrene[k]	5.48 E-05	A
Toluene[k]	9.63 E-04	A
Vinyl Chloride[k]	2.47 E-05	C
Xylene[k]	2.68 E-04	A

[a] Reference 7. Factors represent uncontrolled levels. For NO_X, CO, and PM10, "uncontrolled" means no combustion or add-on controls; however, the factor may include turbocharged units. For all other pollutants, "uncontrolled" means no oxidation control; the data set may include units with control techniques used for NOx control, such as PCC and SCR for lean burn engines, and PSC for rich burn engines. Factors are based on large population of engines. Factors are for engines at all loads, except as indicated. SCC = Source Classification Code. TOC = Total Organic Compounds. PM10 = Particulate Matter ≤ 10 microns (μm) aerodynamic diameter. A "<" sign in front of a factor means that the corresponding emission factor is based on one-half of the method detection limit.

[b] Emission factors were calculated in units of (lb/MMBtu) based on procedures in EPA

Method 19. To convert from (lb/MMBtu) to (lb/10^6 scf), multiply by the heat content of the fuel. If the heat content is not available, use 1020 Btu/scf. To convert from (lb/MMBtu) to (lb/hp-hr) use the following equation:

$$\text{lb/hp-hr} = (\text{lb/MMBtu})(\text{heat input, MMBtu/hr})(1/\text{operating HP})(1/\text{hp})$$

[c] Emission tests with unreported load conditions were not included in the data set.

[d] Based on 99.5% conversion of the fuel carbon to CO_2. CO_2 [lb/MMBtu] = (3.67)(%CON)(C)(D)(1/h), where %CON = percent conversion of fuel carbon to CO_2, C = carbon content of fuel by weight (0.75), D = density of fuel, 4.1 E+04 lb/10^6 scf, and h = heating value of natural gas (assume 1020 Btu/scf at 60°F).

[e] Based on 100% conversion of fuel sulfur to SO_2. Assumes sulfur content in natural gas of 2,000 gr/10^6 scf.

[f] Emission factor for TOC is based on measured emission levels of 43 tests.

[g] Emission factor for methane is determined by subtracting the VOC and ethane emission factors from the TOC emission factor. Measured emission factor for methane compares well with the calculated emission factor, 1.48 lb/MMBtu vs. 1.45 lb/MMBtu, respectively.

[h] VOC emission factor is based on the sum of the emission factors for all speciated organic compounds less ethane and methane.

[i] Considered ≤ 1 μm in aerodynamic diameter. Therefore, for filterable PM emissions, PM10(filterable) = PM2.5(filterable).

[j] No data were available for condensable PM emissions. The presented emission factor reflects emissions from 4SLB engines.

[k] Hazardous Air Pollutant as defined by Section 112(b) of the Clean Air Act.

[l] For lean burn engines, aldehyde emissions quantification using CARB 430 may reflect interference with the sampling compounds due to the nitrogen concentration in the stack. The presented emission factor is based on FTIR measurements. Emissions data based on CARB 430 are available in the background report.

Table 3.2-2. UNCONTROLLED EMISSION FACTORS FOR 4-STROKE LEAN-BURN ENGINES[a]
(SCC 2-02-002-54)

Pollutant	Emission Factor (lb/MMBtu)[b] (fuel input)	Emission Factor Rating
Criteria Pollutants and Greenhouse Gases		
NO_x[c] 90 - 105% Load	4.08 E+00	B
NO_x[c] <90% Load	8.47 E-01	B
CO[c] 90 - 105% Load	3.17 E-01	C
CO[c] <90% Load	5.57 E-01	B
CO_2[d]	1.10 E+02	A
SO_2[e]	5.88 E-04	A
TOC[f]	1.47 E+00	A
Methane[g]	1.25 E+00	C
VOC[h]	1.18 E-01	C
PM10 (filterable)[i]	7.71 E-05	D
PM2.5 (filterable)[i]	7.71 E-05	D
PM Condensable[j]	9.91 E-03	D
Trace Organic Compounds		
1,1,2,2-Tetrachloroethane[k]	<4.00 E-05	E
1,1,2-Trichloroethane[k]	<3.18 E-05	E
1,1-Dichloroethane	<2.36 E-05	E
1,2,3-Trimethylbenzene	2.30 E-05	D
1,2,4-Trimethylbenzene	1.43 E-05	C
1,2-Dichloroethane	<2.36 E-05	E
1,2-Dichloropropane	<2.69 E-05	E
1,3,5-Trimethylbenzene	3.38 E-05	D
1,3-Butadiene[k]	2.67E-04	D
1,3-Dichloropropene[k]	<2.64 E-05	E
2-Methylnaphthalene[k]	3.32 E-05	C
2,2,4-Trimethylpentane[k]	2.50 E-04	C
Acenaphthene[k]	1.25 E-06	C

Table 3.2-2. UNCONTROLLED EMISSION FACTORS FOR 4-STROKE LEAN-BURN ENGINES
(Continued)

Pollutant	Emission Factor (lb/MMBtu)[b] (fuel input)	Emission Factor Rating
Acenaphthylene[k]	5.53 E-06	C
Acetaldehyde[k,l]	8.36 E-03	A
Acrolein[k,l]	5.14 E-03	A
Benzene[k]	4.40 E-04	A
Benzo(b)fluoranthene[k]	1.66 E-07	D
Benzo(e)pyrene[k]	4.15 E-07	D
Benzo(g,h,i)perylene[k]	4.14 E-07	D
Biphenyl[k]	2.12 E-04	D
Butane	5.41 E-04	D
Butyr/Isobutyraldehyde	1.01 E-04	C
Carbon Tetrachloride[k]	<3.67 E-05	E
Chlorobenzene[k]	<3.04 E-05	E
Chloroethane	1.87 E-06	D
Chloroform[k]	<2.85 E-05	E
Chrysene[k]	6.93 E-07	C
Cyclopentane	2.27 E-04	C
Ethane	1.05 E-01	C
Ethylbenzene[k]	3.97 E-05	B
Ethylene Dibromide[k]	<4.43 E-05	E
Fluoranthene[k]	1.11 E-06	C
Fluorene[k]	5.67 E-06	C
Formaldehyde[k,l]	5.28 E-02	A
Methanol[k]	2.50 E-03	B
Methylcyclohexane	1.23 E-03	C
Methylene Chloride[k]	2.00 E-05	C
n-Hexane[k]	1.11 E-03	C
n-Nonane	1.10 E-04	C

Table 3.2-2. UNCONTROLLED EMISSION FACTORS FOR 4-STROKE LEAN-BURN ENGINES
(Continued)

Pollutant	Emission Factor (lb/MMBtu)[b] (fuel input)	Emission Factor Rating
n-Octane	3.51 E-04	C
n-Pentane	2.60 E-03	C
Naphthalene[k]	7.44 E-05	C
PAH[k]	2.69 E-05	D
Phenanthrene[k]	1.04 E-05	D
Phenol[k]	2.40 E-05	D
Propane	4.19 E-02	C
Pyrene[k]	1.36 E-06	C
Styrene[k]	<2.36 E-05	E
Tetrachloroethane[k]	2.48 E-06	D
Toluene[k]	4.08 E-04	B
Vinyl Chloride[k]	1.49 E-05	C
Xylene[k]	1.84 E-04	B

[a] Reference 7. Factors represent uncontrolled levels. For NO_x, CO, and PM10, "uncontrolled" means no combustion or add-on controls; however, the factor may include turbocharged units. For all other pollutants, "uncontrolled" means no oxidation control; the data set may include units with control techniques used for NOx control, such as PCC and SCR for lean burn engines, and PSC for rich burn engines. Factors are based on large population of engines. Factors are for engines at all loads, except as indicated. SCC = Source Classification Code. TOC = Total Organic Compounds. PM-10 = Particulate Matter ≤ 10 microns (μm) aerodynamic diameter. A "<" sign in front of a factor means that the corresponding emission factor is based on one-half of the method detection limit.

[b] Emission factors were calculated in units of (lb/MMBtu) based on procedures in EPA Method 19. To convert from (lb/MMBtu) to (lb/10^6 scf), multiply by the heat content of the fuel. If the heat content is not available, use 1020 Btu/scf. To convert from (lb/MMBtu) to (lb/hp-hr) use the following equation:

$$\text{lb/hp-hr} = (\text{lb/MMBtu})(\text{heat input, MMBtu/hr})(1/\text{operating HP, 1/hp})$$

[c] Emission tests with unreported load conditions were not included in the data set.

[d] Based on 99.5% conversion of the fuel carbon to CO_2. CO_2 [lb/MMBtu] = (3.67)(%CON)(C)(D)(1/h), where %CON = percent conversion of fuel carbon to CO_2, C = carbon content of fuel by weight (0.75), D = density of fuel, 4.1 E+04 lb/10^6 scf, and

h = heating value of natural gas (assume 1020 Btu/scf at 60°F).

[e] Based on 100% conversion of fuel sulfur to SO_2. Assumes sulfur content in natural gas of 2,000 gr/10^6 scf.

[f] Emission factor for TOC is based on measured emission levels from 22 source tests.

[g] Emission factor for methane is determined by subtracting the VOC and ethane emission factors from the TOC emission factor. Measured emission factor for methane compares well with the calculated emission factor, 1.31 lb/MMBtu vs. 1.25 lb/MMBtu, respectively.

[h] VOC emission factor is based on the sum of the emission factors for all speciated organic compounds less ethane and methane.

[i] Considered ≤ 1 μm in aerodynamic diameter. Therefore, for filterable PM emissions, PM10(filterable) = PM2.5(filterable).

[j] PM Condensable = PM Condensable Inorganic + PM-Condensable Organic

[k] Hazardous Air Pollutant as defined by Section 112(b) of the Clean Air Act.

[l] For lean burn engines, aldehyde emissions quantification using CARB 430 may reflect interference with the sampling compounds due to the nitrogen concentration in the stack. The presented emission factor is based on FTIR measurements. Emissions data based on CARB 430 are available in the background report.